

SUPPORT FOR THE AMENDMENT

Support for the amendment to claim 1 is found in claims 5 and 7 as originally presented. By separately preparing mixtures (A) and (B) and mixtures of (A) and (C) those of ordinary skill in the art would immediately recognize that component (A) may be independently selected for the two mixtures. Support for claim 10 is found in paragraph [0041] of the specification. Support for claim 11 is found in paragraph [0011] of the specification. Support for claim 12 is found in paragraph [0012] of the specification. Support for claim 13 is found in paragraph [0013] of the specification. Support for claim 14 is found in paragraph [0014] of the specification. Support for claim 15 is found in paragraph [0016] of the specification. Support for claim 16 is found in paragraph [0018] of the specification. Support for claims 17-18 is found in paragraph [0028] of the specification. Support for claims 19-20 is found in paragraph [0031] of the specification. Support for claims 21-22 is found in paragraph [0040] of the specification. No new matter would be added to this application by entry of this amendment.

Upon entry of this amendment, claims 1-5 and 8-22 will now be active in this application.

REQUEST FOR RECONSIDERATION

The claimed invention is directed to an oil-in water hair cosmetic composition.

Applicants wish to thank examiner Barham for the helpful and courteous discussion held with their U.S. representative on June 11, 2010. At that time applicants' U.S. representative argued that they had discovered enhanced hair conditioning performance from a composition having droplets of components (A) and (B) and droplets of components (A') and (C) and how a composition having at least two populations of droplets was nowhere disclosed or suggested in the cited art of record. The following is intended to expand upon the discussion with the examiner.

Dry and damaged hair has been treated with silicone compounds to provide a conditioning effect. However, issues as to stickiness, friction upon rinsing, uniform application and gloss remain. Thus silicone containing compositions which provide a hair conditioning effect are still being developed.

The claimed invention addresses this problem by providing an oil-in-water hair cosmetic composition comprising an aqueous phase comprising an emulsifier and polysiloxane droplets consisting of a dimethylpolysiloxane of formula (1) and of formula (2) and droplets consisting of a dimethylpolysiloxane of formula (1) and a cyclic dimethylpolysiloxane of formula (3). Applicants have discovered that such a configuration of droplets provides for performance advantages in hair conditioning. Such a composition is nowhere disclosed or suggested in the cited art of record.

The rejections of claim 1-4 and 8-9 under 35 U.S.C. §102(e) over Omura et al. U.S. 6,251,379 and under 35 U.S.C. §103(a) over Kuwata et al. U.S. 5,788,884 are respectfully traversed.

None of the cited art of record, alone or in combination discloses or suggests a composition in which separate dispersions of polysiloxane are provided in a ratio of 1:4 to 4:1.

Omura et al describes a hair-cosmetic composition comprising (A) a cationized keratose and (B) a silicon derivative (see abstract). The silicone derivative may be one or more of silicone compounds (column 7, lines 33-62). The silicone derivatives may be used singly or in combination of two or more species and silicone derivatives (I) and (II) are preferably incorporated in combination (column 9, lines 22-26). The silicone derivative (B) is incorporated by first dissolving in a volatile oil, which may be a linear silicone oil or cyclic silicone oil (column 9, lines 53-65). Page 5 of the official action equates a volatile linear silicone oil with the claimed component (B) and the cyclic silicone oil with the claimed component (C) which are asserted to meet claims 1 and 2. However, the reference fails to disclose or suggest a composition having droplets of (A) and (B) and droplets of (A') and (C). At best the reference would suggest droplets comprising (A), (B) and (C).

In contrast, the claimed invention is directed to a cosmetic composition in which comprises droplets of a mixture comprising polysiloxanes consisting of (A) and (B) and droplets of a mixture comprising polysiloxanes consisting of (A') and (C). Applicants note the claims have been amended to recite the presence of droplet mixtures comprising polysiloxanes consisting of (A) and (B) and droplet mixtures **comprising polysiloxanes consisting of** (A') and (C). Further, applicants note that the claim language has been adjusted to reflect the independent selection of polysiloxane Component (A) in the two droplet populations. As, at best, the cited reference would suggest droplets comprising (A), (B) and (C), separate droplets comprising polysiloxanes consisting of (A) and (B) and separate droplets comprising polysiloxanes consisting of (A') and (C) would not have been obvious.

Kuwata et al. discloses an aqueous organopolysiloxane emulsion comprising (A) organopolysiloxane, (B) cationic surfactant and (C) water (column 2, lines 3-29). The polysiloxane component (A) may be a high molecular-weight such as a non-volatile dimethylpolysiloxane and sometimes, depending on the application, a mixture of two organopolysiloxanes having different viscosities (column 3, lines 18-33). The reference goes on to state that the organopolysiloxane further can be a mixture of high molecular weight non-volatile organopolysiloxane and low molecular weight volatile organopolysiloxane of a cyclic or linear structure having a boiling point of from 100 to 250°C (column 3, lines 33-40).

Page 8 of the official action appear to base obviousness on the combination of U.S. '884 and U.S. '379 via substitution of various known polysiloxanes.

None the less, substitution of polysiloxanes would not render the claimed invention obvious as there is no suggestion in the cited art references to have two droplet mixtures of (A) and (B) and of (A') and (C) nor a ratio of such mixtures of 1:4 to 4:1. Applicants again note that the claims have been amended to specify the presence of droplets comprising polysiloxanes consisting of (A) and (B) and droplets comprising polysiloxanes consisting of (A') and (C) as well as a ratio of (A)(B):(A')(C) of 1:4 to 4:1. Since the cited art fails to disclose or suggest two droplet populations of polysiloxanes the claimed ratio of 1:4 to 4:1 would not have been obvious. The concept of a ratio is not possible in the absence of a disclosure of separate populations, a concept which is not disclosed or suggested in the cited art.

Furthermore, applicants observe an enhancement in hair conditioning performance by us a composition having two populations of polysiloxane droplets, as claimed.

The examiner's attention is directed to the data appearing on page 23, Table 1 of applicants' specification. For the examiner's convenience the table is reproduced below:

Table 1

(w.t. %)	Examples								Comp. Ex.
	1	2	3	4	5	6	7	8	
(A) Methylpolysiloxane a=3000	1.5	-	-	-	-	-	-	-	-
	Methylpolysiloxane a=2500	-	2	-	-	-	-	3	1
	Methylpolysiloxane a=2000	-	-	2	-	-	-	1	-
	Methylpolysiloxane a=1600	-	-	-	2	-	2	-	-
	Methylpolysiloxane a=3700	-	-	-	-	4	-	-	-
	Methylpolysiloxane a=6000	-	-	-	-	-	-	-	5
(B) Methylpolysiloxane b=100	Methylpolysiloxane b=100	-	-	1	-	-	-	-	2
	Methylpolysiloxane b=250	-	-	-	-	-	-	-	5
	Methylpolysiloxane b=200	1.5	-	-	1	-	-	-	-
	Methylpolysiloxane b=400	-	1	-	-	1	-	1.5	-
	Methylpolysiloxane b=50	-	-	-	-	-	2	-	-
(C) Decamethylcyclopolsiloxane	Decamethylcyclopolsiloxane	1.5	-	3	0.5	2	-	1.5	-
	Octamethylcyclotetrasiloxane	-	2	-	-	-	1	-	4
	Dodecamethylcyclohexasiloxane	-	-	-	-	-	-	-	5
(D) N,N-Dimethyl-3-octadecyloxypropylamine	N,N-Dimethyl-3-octadecyloxypropylamine	1	2	1	-	-	-	3	2
	N,N-Dimethyl-3-octadecyloxypropylamine lactate	-	-	-	0.4	-	-	0.5	-
	Stearyltrimethylammonium chloride	-	-	-	2	-	1	-	0.3
	Behenyltrimethylammonium chloride	-	-	-	-	1.5	-	-	-
	Dimethylbenzylammonium chloride	-	-	-	-	-	-	-	3
(E) Cetanol	Cetanol	-	6	1.5	-	-	4	-	-
	Stearyl alcohol	3.5	-	2	6	5	-	9	-
	Behenyl alcohol	-	-	-	-	-	-	-	6
Others	Benzylxyethanol	0.5	0.2	0.3	0.5	0.2	0.4	0.5	0.3
	Lactic acid	0.25	0.2	-	1	-	0.5	0.7	1
	Malic acid	-	0.2	-	-	0.2	-	-	0.1
	Glycolic acid	-	0.2	0.5	0.2	1.5	-	1.5	0.5
	Hydroxyethylcellulose	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-
	Self-emulsified monostearic acid glyceride	-	-	-	-	-	-	-	3
	Ethylene glycol monostearate	-	-	-	-	-	-	-	5
	Lanoline	-	-	-	-	-	-	-	1
	Squalane	-	-	-	-	-	-	-	2
	Sodium hyaluronate	-	-	-	-	-	-	-	0.001
	Antiseptic	-	-	-	-	-	-	-	Trace
	Colorant	-	-	-	-	-	-	-	Trace
	Perfume	-	-	-	-	-	-	-	Trace
	Purified water	Balance							
Evaluation	Spreadability upon application to the wet hair	A	A	B	B	B	A	A	C
	Finger combing upon application to the wet hair	A	A	A	B	B	A	B	D
	Finger combing upon rinsing	A	A	A	A	B	B	A	B
	Absence of harsh friction upon rinsing	B	A	B	A	B	B	A	C
	Softness of the hair upon rinsing	A	B	A	B	A	B	A	D
	Stickiness of the hair during drying (when the hair is half dried)	B	A	B	A	B	A	B	C
	Stickiness of the hair after drying	B	A	A	A	B	A	A	C
	Finger combing of the hair after drying	A	A	A	B	B	A	A	B
	Manageability of the hair after drying	A	A	A	B	B	A	A	C

Applicants note, as described on pages 18-19 of applicants' specification, comparative example 1 was prepared by mixing component (A), (B) and (C) while examples 1-8 were prepared to have separate droplets of (AB) and of (AC).

Each of the inventive examples demonstrated performance in at least one of the sensory evaluations which exceed the performance of comparative example 1. In addition, in no case did the performance of comparative example 1 exceed the performance of any of the inventive examples. Thus, an enhancement in hair conditioning performance using a population of two polysiloxanes has been demonstrated.

Since the cited art of record fails disclose the claimed droplet populations in the claimed ratio, the claimed invention is neither anticipated nor rendered obvious by the cited references and accordingly withdrawal of the rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a) is respectfully requested.

The rejection of claim 1 under 35 U.S.C. §112, second paragraph has been obviated by appropriate amendment.

Applicants have now amended to claims to delete the term "type" but note that the examiner's inquiry as to the nature of the oil-in-water hair cosmetic is misguided as the forms of a gel, cream or spray describe macroscopic properties of the composition where an oil-in-water emulsion is descriptive of the microscopic properties of the composition. None the less in view of applicants' amendment, withdrawal of this ground of rejection is respectfully requested.

Applicants submit that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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